

REMARKS

SPECIFICATION

The specification has been amended to further clarify that the "two elements" of the third measuring element are detecting parts, as now set forth in amended claim 1.

DRAWINGS

The Examiner has not acknowledged Applicant's Request for Approval of Drawing Corrections filed on July 21, 2003. We, therefore respectfully request approval of these corrections.

CLAIM OBJECTIONS AND REJECTIONS UNDER 35 U.S.C. § 112

Claims 1-7 and 11-13 were rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for the reasons set forth in numbered paragraph 2, on pages 2 and 3 of the Action.

As discussed hereafter, it is submitted that these claims, as now amended, satisfy all the requirements of 35 U.S.C. 112.

CLAIM REJECTIONS UNDER 35 U.S.C. §102 AND §103

Claims 1-7 and 11 were rejected under 35 U.S.C.

§ 102(a) as being anticipated by Kodama et al. U.S. Patent No. 6,059,684 for the reasons set forth in numbered paragraph 3, on pages 4-6 of the Action.

Claims 12-13 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Kodama as applied to claim 11 above, and further in view of Villemin U.S. Patent No. 5,021,024 for the reasons set forth in numbered paragraph 4, on pages 6-7 of the Action.

For the reasons set forth hereafter, it is submitted that claims 1-7 and 11-13, as amended, are patentable over the prior art.

THE PRESENT INVENTION

The present invention is directed to removing fillets from eviscerated carcasses of poultry whose extremities have all been totally detached therefrom by using a scraping device that includes a disc-like scraping element. Applicants' invention further includes a measuring device for measuring the individual dimensions of the poultry carcass from the outside of the carcass for finding a starting position for loosening the fillets from the carcass. The measuring device

includes a first element for detecting a first body joint point, a second element for detecting a second body joint point, wherein the first element and the second element are offset in the transport direction of the carcass, and a third element which is mounted behind the first and second elements which consists of two detecting parts for detecting the first and second body joint points, respectively.

Applicants are claiming both a device for removing fillets from poultry carcasses whose extremities have all been totally detached as well as a method therefor.

By this amendment, independent claim 1 and 11 have been amended to further clarify that the device used in connection with eviscerated carcasses of poultry whose extremities have all been totally detached therefrom and to further define the measuring device as measuring the individual dimensions of the poultry carcass from the outside of the carcass. Moreover, the third measuring element is now defined as having two detecting parts.

PATENTABILITY OF THE CLAIMS UNDER 35 U.S.C. § 112

Claim 1 was rejected as being indefinite since it was stated to be unclear as to whether the two elements of the third element are the first and second elements or separate

elements. Applicants have now amended claim 1 to define the third element as having two detecting parts. It is believed that this amendment clarifies any indefiniteness.

Claims 1, 5 and 6 were rejected as having insufficient antecedent basis for certain limitations in the claims. These claims have now been all amended in a matter which is believed satisfies this rejection.

Claims 1 and 2 were rejected as being incomplete for "omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections." In making this rejection, reference was made to MPEP § 2172.01. Reconsideration and withdrawal of this rejection is respectfully requested.

Claims 1 and 2 define a device for removing fillets comprising a measuring device having three elements, a control unit, a scraping device and means connecting the measuring device via the control unit to the scraping device for the purpose of communicating poultry carcass measuring data to the scraping device, with the scraping device including a disc-like scraping element. The device for removing fillets, as set forth in claims 1 and 2, is fully described from page 5, line 22 to page 6, line 14 of the substitute specification

where it is evident that a structural cooperative relationship between the measuring device, first element, second element, third element, control unit, scraping device and means connecting the measuring device via the control unit to the scraping device is clearly set forth.

It is not necessary in a claim to set forth all the details of how an element is connected to another element as long as it is clear from the specification and claims what is being claimed. What is being claimed clearly is a device for removing fillets from eviscerated carcasses of poultry whose extremities have all been totally detached therefrom. Accordingly, it is submitted that claims 1 and 2 fully satisfy all the requirements of 35 U.S.C. § 112, second paragraph.

Moreover, § 2172.01 of the MPEP cites the cases of In re Venezia and In re Collier as authority for the statement that "a claim which fails to interrelate essentials elements of the invention as defined by applicant(s) in the specification may be rejected under 35 U.S.C. § 112, second paragraph, for failure to point out and distinctly claim the invention."

The cases of In re Venezia and In re Collier, however, do not support the Examiner's rejection in connection with the present application. The case of In re Venezia involved a

splice connector kit having various component parts capable of being assembled and the claims initially were rejected by the Examiner and the Board of Appeals for not positively reciting the structural relationships of two elements in the claim. On appeal to the Court of Customs and Patent Appeals, however, the Court reversed the finding of the Examiner and the Board and then concluded that the claim do define the metes and bounds of the claimed invention with a reasonable degree of precision and particularity. In so doing, the Court also discussed the case of In re Collier and then distinguished over it. Thus, the case of In re Venezia cited in MPEP § 2172.01 supports Applicants claims in connection with the present invention since the Applicants claims, as now amended, "do define the metes and bounds of the claimed invention with a reasonable degree of precision and particularity" and therefore are definite as required by the second paragraph of § 112.

Claim 11 was also rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for being "unclear to what the first, second and third elements are mounted." The Examiner's attention is directed to the fact, however, that claim 11 and claims 12 and 13 depending therefrom, are method claims and

not apparatus or device claims. In a method claim, there is no requirement or necessity to set forth how all the various elements may be mounted. It is, therefore, respectfully requested that the rejection under 35 U.S.C. § 112 of claims 11-13 also be withdrawn.

PATENTABILITY OF THE CLAIMS OVER THE PRIOR ART

With respect to all the cited references, Applicants hereby incorporate herein by reference the discussions of these same references set forth in the previous amendments filed July 21, 2003 and December 15, 2003.

With respect to the Examiner's interpretation of the references in the present Office Action, it is respectfully submitted that the Examiner has not correctly understood and/or interpreted the cited references for the reasons set forth hereafter.

With respect to the Kodama et al '648 patent, this patent relates to an automatic deboning method and apparatus which shows a rotatable processing unit in which poultry carcasses are processed and to which, initially, the extremities are still attached to the carcasses. Thus, the patent refers to "breast meat is separated together with wings" at col. 1,

lines 7-13; "stripping breast meat using wings" and "severing breast meat off from the wings" at col. 3, lines 10-13; "wings attached to the breast meat stripped in the breast meat stripping step" at col. 4, lines 33 and 34; and "breast meat stripping is performed in the steps of: grasping the left and right wings attached with the caput humeris 105" at col. 22, lines 22-24.

Moreover, attached is a copy of a brochure of the Applicant of the '648 patent, Mayekawa Mfg. Co. Ltd., in which step 9 refers to "breast meat stripping" and "breast/wings cut-up" in step 9 and wherein the diagram on the second page of the brochure refers to the 9th station as "breast meat stripping" and "breast/wings cut-up". See also the attached copy of Fig. 1 of the '048 patent. Thus, it is clear from both the patent itself as well as an additional brochure from Mayekawa that the breast fillet is stripped and/or skinned by means of the wings attached to the fillet. Only then are the membranes cut as described with respect to the 10th station in the patent and step 10 in the brochure, in order to reach the inner fillet and to remove or pull the fillet away.

Thus, the apparatus and method shown in Kodama et al is quite different from the present invention in which the

shoulder joints are measured in order to separate the breast fillet from the carcass by scraping wherein the carcass has no extremities. In Kodama et al, in the sixth station or step 6, a measurement is carried out in order to determine the position for cutting the sinews/tendons between the wings and the fillet (7th and 8th station). However, this measurement in Kodama et al has nothing to do with the measurement of the present invention in which it is necessary to find a starting position for loosening the fillets from the skeleton by scraping.

In order to further explain the differences between the invention according to the Kodama et al. '648 patent and the present invention in more detail, attached are two sets of color photographs. The first set of photos depicts the simulated invention according to Kodama et al. The photos manually reproduce each single step of the deboning machine of Kodama et al., starting with the measuring, as can also be taken from the attached brochure of the applicant of the '648 patent. The second set of photos illustrates the filleting device of the present invention. Explained in greater detail, the two sets of photographs illustrate as follows:

Photos manually reproducing steps of the deboning machine of Kodama et al. (US 6,059,648)

<u>Photo No.</u>	<u>Work Station of Brochure</u>	<u>Work Station of US 6,059,648</u>	<u>Explanations</u>
1	6 th Station	5 th Station of Fig. 2 (also Figs. 10A and 10B)	Measuring (in order to prepare shoulder line and side portion cutting to sever the shoulder joints)
2	7 th Station	6 th Station of Fig. 2 (also Fig. 11A)	Shoulder Joint Cutting (A) / Shoulder Portion Cutting
3	8 th Station	7 th Station of Fig. 2 (also Fig. 11B)	Shoulder Joint Cutting (B) / Side Portion Cutting
4	9 th Station	8 th Station of Fig. 2 (also Fig. 12B)	Breast Meat Stripping (by means of the wings which are still attached to the fillet(tenderloin still attached to the carcass))
5	"	"	"
6	"	"	"
7	10 th Station	9 th Station of Fig. 2 (also Figs. 13A and 13B)	Membrane Cutting / White Meat Line-Cutting (in order to reach the inner fillet (tender-piece) and to remove this/pull this away)
8	"	"	"
9	---	---	Revealed inner fillet (tender-piece/white meat)
10	11 th Station	11 th Station of Fig. 2 (also Fig. 14)	Tender-piece stripping / White Meat Removing
11	"	"	"

Photos illustrating the filleting device of the present invention

<u>Photo No.</u>	<u>Figure of present invention</u>	<u>Explanations</u>
1	Fig. 4 - first measuring element 12	Measuring (2-dimensional detection of the first body point joint – step 1 – length and height)
"	Fig. 4 - second measuring element 13	Measuring (2-dimensional detection of the second body point joint – step 2 – length and height (offset))
2 & 3	Fig. 4 - right and left elements 30, 31 of measuring element 14	Measuring (3-dimensional detection of the first and second body point joints – step 3 – width)
4	Fig. 4 - discs 22, 23 of scraping device	Detaching fillet using the aforementioned measuring data
5	Fig. 4 - scraping elements 17, 18	Scraping breast and inner fillet from carcass

The differences between Applicants' present invention and Kodema et al. are further explained hereafter.

MEASURING

Present invention

The measuring according to the present invention is performed in order to find the body point joints which represent the starting position for loosening/removing the complete fillets (breast, tenderloin) from an extremity-free poultry carcass.

The measuring is performed three-dimensionally, i.e. the length, height and width of the body point joints are ascertained by means of the 2-dimensional first, 2-dimensional second and 3-dimensional third elements.

Measurement takes place from the outside of the poultry carcass, i.e. the first, second and third elements contact the carcass from the outside.

U.S. Patent 6,059,648 of Kodama et al.

The measuring according to the '648 patent serves to prepare a reference for performing the shoulder line and side portion line cutting so that the shoulder joints can be

severed (please see, for example, column 20, line 41 of the '648 patent).

Cutting is performed in order to sever all tendons of the shoulder joint, with the exception of the tendons between the breast fillet and the wings.

Measuring is performed two-dimensionally by the measuring bars 60, 61, Sections 58-59 are merely drive elements which move the measuring bars 60, 61 and supporting elements which support the bars 60, 61, respectively (please see, for example, column 20, line 46 of the '648 patent).

Measurement takes place on the inside of the poultry carcass, i.e. the measuring elements are inserted into the poultry carcass.

EXTREMITIES

Present Invention

All extremities (including the wings) have been totally detached from the poultry carcass of the present invention, as is evident from the enclosed photographs. Moreover, the claims have been amended to now recite in the body of the claims--in addition to being in the preamble--that the extremities have been totally detached from the carcass.

U.S. Patent 6,059,648 of Kodama et al.

It is important and necessary that the extremities are still partly attached to the carcass of the invention according to Kodama, as the fillets are separated from the body with the help of the extremities, in particular the wings, as can be taken from the 8th Station of Fig. 1 and Fig. 2 and Fig. 12B of the '648 patent (9th Station of the attached brochure).

SCRAPING DEVICE

Present Invention

The rotary discs (scraping tools) of the scraping devices according to the present invention are blunt tools which scrape, not cut, and detach the fillets from poultry carcasses without damaging or cutting the bones and/or the meat. This increases the yield of fillet meat while at the same time producing a visually pleasing product.

U.S. Patent 6,059,648 to Kodama et al.

Elements 63 are not scraping devices, but oblique run cutters (rotary blades) which are edged tools in order to sever (i.e. cut through) the shoulder joints to firstly sever the outside tendons (please see, for example, column 21, line

7 ff. and column 22, line 4 ff. "...whose outward positioned tendons have been cut off by the shoulder line-cutting..."). Secondly, the inwardly positioned tendons are severed (i.e. cut through) by means of rotary cutters 65a, 65b (please see, for example, column 22, line 16 ff. "...which enables a high recovery rate cutting of the inward positioned tendons...").

With respect to U.S. Patent No. 5,021,024 of Villemin et al., there is a generic difference between the present invention and the device/method according to the Villemin '024 patent. In the '024 patent, the extremities of the poultry carcasses have not been detached before the fillets are removed. From Fig. 1 of the method, according to the '024 patent, it is clear that at positions D and E of the device, the fillets of poultry carcasses have already been cut, and only thereafter are the extremities removed.


Furthermore, in this method the individual carcass dimensions are not detected, so that a control of a or each scraping device as a function of the size of the products to be processed as disclosed in Applicants' present invention cannot be performed.

In the method according to the '024 patent, the sensor 17 merely detects the presence and position of the carcass to be

processed. The sensor 17 of the '024 patent, therefore, has nothing in common with the detection of the size of the poultry carcasses, as described in the present invention. Therefore, it would not be obvious to combine Villemin et al. with Kodema et al. in the manner done so by the Examiner.

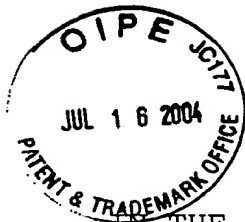
In view of the foregoing amendments and remarks, Applicants contend that this application is in condition for allowance. Accordingly, reconsideration and reexamination are respectfully requested.

Respectfully submitted,



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WK-188

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

R. EVERS et al.

Serial No. 09/807,290

Group Art Unit: 3643

Filed: April 11, 2001

Examiner: David J. Parsley

For: FILLETING DEVICE

**EXHIBITS
TO AMENDMENT
OF JULY 16, 2004**

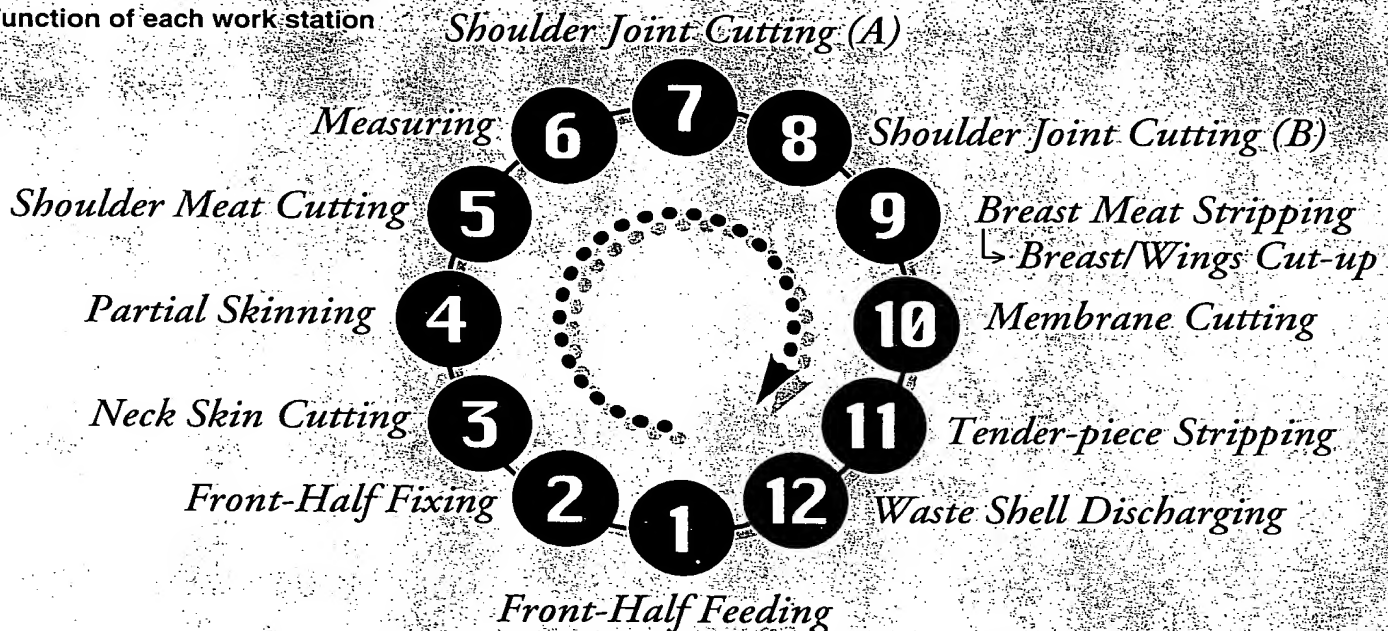
MYCOM

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YIELDAS

Chicken Breast deboning machine

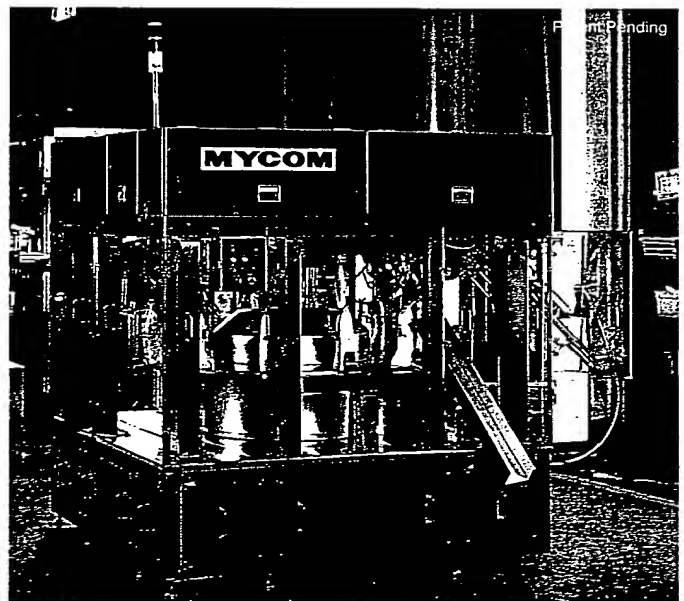
Function of each work station



INTRODUCTION

MYCOM has newly developed a state-of-the-art Automatic chicken breast deboning machine, YIELDAS, by taking advantage of the same poultry meat processing robotic technology of TORIDAS, the Chicken whole-leg deboning machine, as well as the expertise of manual deboning procedure of poultry meat while having accomplished six (6) times faster deboning speed of breast meat and tender-filets than that of the skilled manual worker and also integrated an automatic device of wing-parts cut-up in 3 pieces. YIELDAS has two major features of note, and one is the measuring process at the 5th work station, which results in eliminating the sorting of raw material in sizes, and achieves an optimum deboning result regardless of different sizes in individual raw material. The other major feature is the tender stripping process at the 10th work station. By shallowly cutting a part of the very thin membrane wrapping the tender with an edge tool at the 9th work station we succeed in stripping off the complete tender without the membrane, without any damage. YIELDAS, with its fully automated self-calibration feature, is easily operated by an unskilled worker and constantly achieves a higher deboning yield rate than any other conventional breast deboning machine.

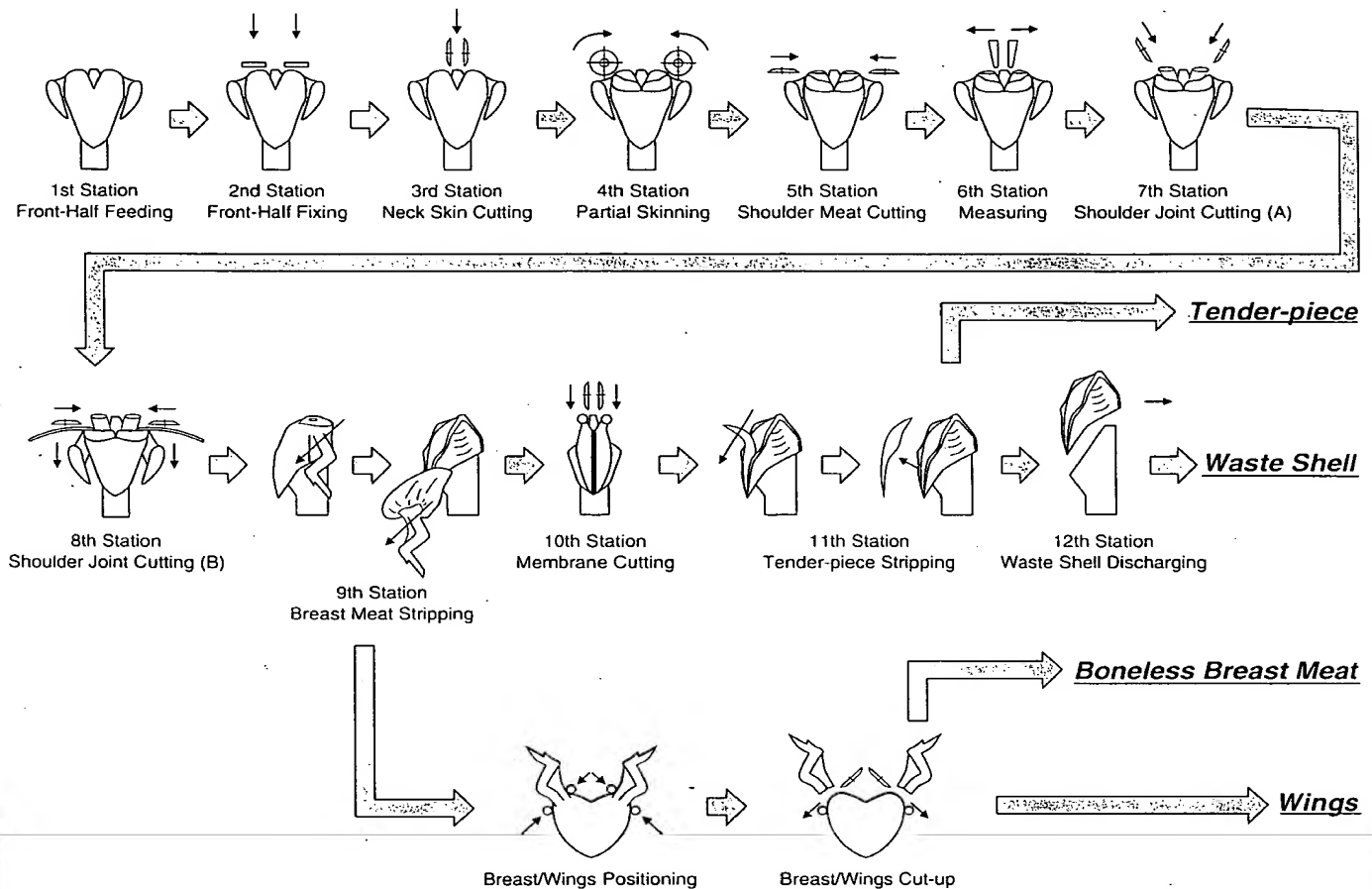
YIELDAS provides very hygienic boneless breast meat together with segmented wing parts in compliance with HACCP rules and, in addition, a higher production yield outcome with fewer workers.



YOU CAN COUNT ON US FOR SOLVING YOUR PROBLEMS.

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Process of each work station



SPECIFICATIONS

- 1) Final products : Skin-on boneless breast, tender-filets, wing-parts
- 2) Capacity : 900 pieces per hour (i.e. 15 pieces per min.)
- 3) Raw material : Front-half carcass with wings
- 4) Applicable weight : between 1,000g (2.2 lbs) and 1,300g (2.9 lbs)
- 5) Required Electricity : AC200V, 50/60Hz, 3 Phase, 12kVA
- 6) Compressed Air : 1,000 l/min, 6 bars
- 7) Require worker : One (1) worker for carcass loading
- 8) YIELDAS Weight : 2500kg (5500 lbs)
- 9) Dimension : 2,300mm long, 2,900mm wide, 2,100mm high

Mayekawa Mfg. Co., Ltd. has been accredited by D.N.V. for ISO14001 as well as ISO9001.

MYCOM

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FIG. 1

